

artificial intelligence textbooks

artificial intelligence textbooks are essential resources for anyone looking to delve into the dynamic field of AI. As the technology continues to evolve and influence various sectors, having a solid foundation in artificial intelligence concepts is crucial. This article provides an in-depth exploration of the best textbooks available for studying artificial intelligence, outlining their key features, target audiences, and contributions to the field. We will cover introductory texts, advanced materials, and specialized books that address specific areas such as machine learning and neural networks. Additionally, we will present a comprehensive list of recommended textbooks, ensuring that readers can find the right resources for their academic and professional pursuits.

- Introduction to Artificial Intelligence Textbooks
- Importance of Artificial Intelligence Textbooks
- Types of Artificial Intelligence Textbooks
- Recommended Artificial Intelligence Textbooks
- How to Choose the Right Artificial Intelligence Textbook
- Future Trends in Artificial Intelligence Education

Introduction to Artificial Intelligence Textbooks

Artificial intelligence textbooks serve as fundamental guides for those interested in understanding the principles and applications of AI technologies. These books cater to various levels of expertise, from beginners seeking foundational knowledge to advanced learners looking for specialized information. By providing theoretical insights and practical applications, these textbooks facilitate a comprehensive understanding of AI. This section will explore the evolution of AI literature, highlighting how these resources have adapted to the rapid advancements in technology and research.

The Evolution of AI Textbooks

Since the inception of artificial intelligence as a field of study, textbooks have played a pivotal role in disseminating knowledge. The early texts were primarily focused on programming and logic, but as AI has expanded to

encompass areas such as machine learning, natural language processing, and robotics, textbooks have evolved accordingly. Modern AI textbooks often include case studies, practical exercises, and access to online resources, making them invaluable for both self-study and academic courses.

Current Trends in AI Textbook Publishing

Recent trends in AI textbook publishing include an emphasis on interdisciplinary approaches, integrating insights from computer science, cognitive psychology, and ethics. Additionally, many contemporary textbooks are being updated regularly to include the latest research findings and technological advancements. This ensures that readers have access to the most relevant and cutting-edge information in the field of artificial intelligence.

Importance of Artificial Intelligence Textbooks

The significance of artificial intelligence textbooks cannot be overstated. They serve as foundational resources that equip learners with the necessary knowledge and skills to navigate the complexities of AI. These textbooks are crucial for various reasons, including standardizing learning materials, providing structured knowledge, and facilitating research and development in the field.

Standardization of Knowledge

Artificial intelligence textbooks establish a standardized framework for learning, ensuring that all students receive a consistent quality of education. This standardization is particularly important in a field as diverse as AI, where concepts can vary greatly from one application to another. Textbooks help streamline the learning process, making it easier for instructors to teach and for students to learn.

Facilitating Research and Development

Textbooks are not only educational tools but also serve as references for researchers and professionals in the AI field. They compile a wealth of information that can inform new research projects, guide experimental design, and aid in the development of innovative applications. By referencing established texts, practitioners can build upon previous work and contribute to the ongoing evolution of artificial intelligence.

Types of Artificial Intelligence Textbooks

Artificial intelligence textbooks can be broadly categorized into several types, each catering to different audiences and learning objectives. Understanding these categories can help learners choose the most appropriate resources for their needs.

- **Introductory Textbooks:** These books are designed for beginners and cover the fundamental concepts of AI, including basic algorithms, programming languages, and introductory machine learning.
- **Advanced Textbooks:** Aimed at graduate students or professionals, these texts delve deeper into complex topics such as neural networks, deep learning, and advanced statistical methods.
- **Specialized Textbooks:** These focus on niche areas within AI, such as natural language processing, computer vision, or robotics, providing detailed insights and applications relevant to those fields.
- **Practical Guides:** These textbooks emphasize hands-on learning, often including exercises, case studies, and access to online resources to facilitate practical application of AI techniques.

Recommended Artificial Intelligence Textbooks

Choosing the right textbook can significantly impact one's understanding of artificial intelligence. Below is a curated list of highly recommended artificial intelligence textbooks that cater to a wide range of learners.

- **Artificial Intelligence: A Modern Approach** by Stuart Russell and Peter Norvig - This comprehensive textbook is widely regarded as the definitive guide to AI, covering a vast array of topics with clarity and depth.
- **Pattern Recognition and Machine Learning** by Christopher M. Bishop - This book provides an in-depth introduction to statistical methods in machine learning, perfect for those looking to specialize in this area.
- **Deep Learning** by Ian Goodfellow, Yoshua Bengio, and Aaron Courville - A cornerstone text in the field of deep learning, this book covers both theoretical foundations and practical applications.
- **Natural Language Processing with Python** by Steven Bird, Ewan Klein, and Edward Loper - Ideal for those interested in NLP, this book offers a hands-on approach to language processing using Python.

- **Reinforcement Learning: An Introduction** by Richard S. Sutton and Andrew G. Barto - This text is essential for anyone looking to understand the principles and applications of reinforcement learning.

How to Choose the Right Artificial Intelligence Textbook

Selecting the appropriate artificial intelligence textbook can be daunting given the plethora of options available. However, several key factors can guide this decision-making process.

Assess Your Current Knowledge Level

Before choosing a textbook, it is crucial to assess your current level of knowledge in artificial intelligence. Beginners should opt for introductory texts that lay the groundwork, while more experienced learners may seek advanced or specialized resources that challenge their understanding and expand their skills.

Identify Your Area of Interest

AI is a broad field encompassing various sub-disciplines. Identifying your specific area of interest—be it machine learning, robotics, or natural language processing—can help narrow down the options to textbooks that provide the most relevant information.

Consider the Learning Format

Different textbooks cater to different learning styles. Some learners may prefer comprehensive theoretical texts, while others might benefit from practical guides with exercises and case studies. Choosing a book that aligns with your preferred learning format will enhance your educational experience.

Future Trends in Artificial Intelligence Education

The landscape of artificial intelligence education is evolving rapidly. As AI technologies continue to advance, so too will the educational materials that support them. Future trends in artificial intelligence textbooks will likely include a greater emphasis on ethics, interdisciplinary studies, and the integration of online resources.

Ethical Considerations in AI

As artificial intelligence becomes increasingly integrated into society, ethical considerations surrounding its use are gaining prominence. Future textbooks are expected to include dedicated sections on the ethical implications of AI technologies, preparing students to navigate these important discussions.

Interdisciplinary Approaches

AI is inherently interdisciplinary, drawing from fields such as cognitive science, neuroscience, and philosophy. Future educational materials will likely reflect this by incorporating diverse perspectives and methodologies to enrich the learning experience.

Digital Integration

With the rise of digital learning platforms, textbooks will increasingly incorporate online resources such as video lectures, interactive exercises, and forums for discussion. This integration will provide learners with a more engaging and comprehensive educational experience.

Conclusion

Artificial intelligence textbooks are invaluable resources that support learners at all levels in understanding this complex and rapidly evolving field. By exploring the different types of textbooks available, recognizing their importance, and staying informed about future trends, students and professionals can better equip themselves to excel in artificial intelligence. As the field continues to grow, so will the educational materials that support it, ensuring that learners have access to the latest knowledge and skills necessary for success.

Q: What are the best introductory artificial intelligence textbooks?

A: Some of the best introductory textbooks include "Artificial Intelligence: A Modern Approach" by Stuart Russell and Peter Norvig, which provides a comprehensive overview of AI concepts, and "Artificial Intelligence for Dummies" by John Paul Mueller and Luca Massaron, which simplifies the subject for beginners.

Q: Are there textbooks focused on machine learning?

A: Yes, several textbooks focus specifically on machine learning. "Pattern Recognition and Machine Learning" by Christopher M. Bishop and "Deep Learning" by Ian Goodfellow, Yoshua Bengio, and Aaron Courville are both highly recommended for their depth and clarity in this area.

Q: How often are artificial intelligence textbooks updated?

A: The frequency of updates varies by textbook. However, many leading authors regularly revise their books to incorporate the latest research findings and technological advancements, reflecting the rapidly changing landscape of artificial intelligence.

Q: Can artificial intelligence textbooks be used for self-study?

A: Absolutely! Many artificial intelligence textbooks are designed with self-study in mind, offering exercises, case studies, and online resources that facilitate independent learning.

Q: What should I look for in a specialized AI textbook?

A: When choosing a specialized AI textbook, consider factors such as the depth of coverage in your area of interest, practical applications included, author expertise, and reader reviews to ensure it meets your learning needs.

Q: Are there any ethical considerations discussed in AI textbooks?

A: Yes, many contemporary AI textbooks now include discussions on ethical considerations, addressing topics such as bias in AI systems, data privacy, and the societal impact of AI technologies.

Q: Is programming knowledge necessary to understand AI textbooks?

A: While some foundational programming knowledge can be beneficial, many introductory AI textbooks are written to accommodate readers without extensive programming experience, focusing instead on concepts and theories.

Q: What is the impact of online resources on traditional AI textbooks?

A: Online resources significantly enhance traditional AI textbooks by providing interactive learning opportunities, such as video lectures and forums, which enrich the educational experience and allow for updated content.

Q: How do I select the right AI textbook for my needs?

A: To select the right AI textbook, assess your current knowledge level, identify your area of interest, consider your preferred learning format, and read reviews to find a book that aligns with your educational goals.

[Artificial Intelligence Textbooks](#)

Find other PDF articles:

<https://explore.gcts.edu/textbooks-suggest-005/files?trackid=BSC07-9814&title=textbooks-syracuse.pdf>

artificial intelligence textbooks: *Artificial Intelligence By Example* Denis Rothman, 2018-05-31 Be an adaptive thinker that leads the way to Artificial Intelligence Key Features AI-based examples to guide you in designing and implementing machine intelligence Develop your own method for future AI solutions Acquire advanced AI, machine learning, and deep learning design skills Book Description Artificial Intelligence has the potential to replicate humans in every field. This book serves as a starting point for you to understand how AI is built, with the help of intriguing examples and case studies. Artificial Intelligence By Example will make you an adaptive thinker and help you apply concepts to real-life scenarios. Using some of the most interesting AI examples, right from a simple chess engine to a cognitive chatbot, you will learn how to tackle the machine you are competing with. You will study some of the most advanced machine learning models, understand how to apply AI to blockchain and IoT, and develop emotional quotient in chatbots using neural networks. You will move on to designing AI solutions in a simple manner rather than get confused by complex architectures and techniques. This comprehensive guide will be a starter kit for you to develop AI applications on your own. By the end of this book, will have understood the fundamentals of AI and worked through a number of case studies that will help you develop business vision. What you will learn Use adaptive thinking to solve real-life AI case studies Rise beyond being a modern-day factory code worker Acquire advanced AI, machine learning, and deep learning designing skills Learn about cognitive NLP chatbots, quantum computing, and IoT and blockchain technology Understand future AI solutions and adapt quickly to them Develop out-of-the-box thinking to face any challenge the market presents Who this book is for Artificial Intelligence by Example is a simple, explanatory, and descriptive guide for junior developers, experienced developers, technology consultants, and those interested in AI who want to understand the fundamentals of Artificial Intelligence and implement it practically by devising smart solutions. Prior

experience with Python and statistical knowledge is essential to make the most out of this book.

artificial intelligence textbooks: Introduction to Artificial Intelligence Wolfgang Ertel, 2018-01-18 This accessible and engaging textbook presents a concise introduction to the exciting field of artificial intelligence (AI). The broad-ranging discussion covers the key subdisciplines within the field, describing practical algorithms and concrete applications in the areas of agents, logic, search, reasoning under uncertainty, machine learning, neural networks, and reinforcement learning. Fully revised and updated, this much-anticipated second edition also includes new material on deep learning. Topics and features: presents an application-focused and hands-on approach to learning, with supplementary teaching resources provided at an associated website; contains numerous study exercises and solutions, highlighted examples, definitions, theorems, and illustrative cartoons; includes chapters on predicate logic, PROLOG, heuristic search, probabilistic reasoning, machine learning and data mining, neural networks and reinforcement learning; reports on developments in deep learning, including applications of neural networks to generate creative content such as text, music and art (NEW); examines performance evaluation of clustering algorithms, and presents two practical examples explaining Bayes' theorem and its relevance in everyday life (NEW); discusses search algorithms, analyzing the cycle check, explaining route planning for car navigation systems, and introducing Monte Carlo Tree Search (NEW); includes a section in the introduction on AI and society, discussing the implications of AI on topics such as employment and transportation (NEW). Ideal for foundation courses or modules on AI, this easy-to-read textbook offers an excellent overview of the field for students of computer science and other technical disciplines, requiring no more than a high-school level of knowledge of mathematics to understand the material.

artificial intelligence textbooks: Principles of Artificial Intelligence Nils J. Nilsson, 1982-05-01 Previous treatments of Artificial Intelligence (AI) divide the subject into its major areas of application, namely, natural language processing, automatic programming, robotics, machine vision, automatic theorem proving, intelligent data retrieval systems, etc. The major difficulty with this approach is that these application areas are now so extensive, that each could, at best, be only superficially treated in a book of this length. Instead, I have attempted here to describe fundamental AI ideas that underlie many of these applications. My organization of these ideas is not, then, based on the subject matter of their application, but is, instead, based on general computational concepts involving the kinds of data structures used, the types of operations performed on these data structures, and the properties of control strategies used by AI systems. I stress, in particular, the important roles played in AI by generalized production systems and the predicate calculus. The notes on which the book is based evolved in courses and seminars at Stanford University and at the University of Massachusetts at Amherst. Although certain topics treated in my previous book, Problem solving Methods in Artificial Intelligence, are covered here as well, this book contains many additional topics such as rule-based systems, robot problem-solving systems, and structured-object representations.

artificial intelligence textbooks: Artificial Intelligence Stuart Jonathan Russell, Peter Norvig, Ernest Davis, 2010 Artificial intelligence: A Modern Approach, 3e, is ideal for one or two-semester, undergraduate or graduate-level courses in Artificial Intelligence. It is also a valuable resource for computer professionals, linguists, and cognitive scientists interested in artificial intelligence. The revision of this best-selling text offers the most comprehensive, up-to-date introduction to the theory and practice of artificial intelligence.

artificial intelligence textbooks: Essentials of Artificial Intelligence Matt Ginsberg, 2012-12-02 Since its publication, Essentials of Artificial Intelligence has been adopted at numerous universities and colleges offering introductory AI courses at the graduate and undergraduate levels. Based on the author's course at Stanford University, the book is an integrated, cohesive introduction to the field. The author has a fresh, entertaining writing style that combines clear presentations with humor and AI anecdotes. At the same time, as an active AI researcher, he presents the material authoritatively and with insight that reflects a contemporary, first hand understanding of the field.

Pedagogically designed, this book offers a range of exercises and examples.

artificial intelligence textbooks: Methods and Tools for Applied Artificial Intelligence

Popovic, 1994-05-02 This work provides a comprehensive and coherent introduction to the expanding field of Artificial Intelligence (AI), explaining how knowledge-based systems are built, what tools and technologies are relevant and available, and how to employ them in specific situations. It pays special attention to the commercial intelligence systems that emerged in the '80s, as well as projecting the likely developments of the '90s.

artificial intelligence textbooks: Contemporary Artificial Intelligence, Second Edition Richard

E. Neapolitan, Xia Jiang, 2018 The first edition of this popular textbook, *Contemporary Artificial Intelligence*, provided an accessible and student friendly introduction to AI. This fully revised and expanded update, *Artificial Intelligence: With an Introduction to Machine Learning, Second Edition*, retains the same accessibility and problem-solving approach, while providing new material and methods. The book is divided into five sections that focus on the most useful techniques that have emerged from AI. The first section of the book covers logic-based methods, while the second section focuses on probability-based methods. Emergent intelligence is featured in the third section and explores evolutionary computation and methods based on swarm intelligence. The newest section comes next and provides a detailed overview of neural networks and deep learning. The final section of the book focuses on natural language understanding. Suitable for undergraduate and beginning graduate students, this class-tested textbook provides students and other readers with key AI methods and algorithms for solving challenging problems involving systems that behave intelligently in specialized domains such as medical and software diagnostics, financial decision making, speech and text recognition, genetic analysis, and more.--Provided by publisher.

artificial intelligence textbooks: *Artificial Intelligence: A Systems Approach* M. Tim

Jones, 2008-12-26 This book offers students and AI programmers a new perspective on the study of artificial intelligence concepts. The essential topics and theory of AI are presented, but it also includes practical information on data input & reduction as well as data output (i.e., algorithm usage). Because traditional AI concepts such as pattern recognition, numerical optimization and data mining are now simply types of algorithms, a different approach is needed. This "sensor / algorithm / effector" approach grounds the algorithms with an environment, helps students and AI practitioners to better understand them, and subsequently, how to apply them. The book has numerous up to date applications in game programming, intelligent agents, neural networks, artificial immune systems, and more. A CD-ROM with simulations, code, and figures accompanies the book.

artificial intelligence textbooks: *Explainable Artificial Intelligence: An Introduction to*

Interpretable Machine Learning Uday Kamath, John Liu, 2021-12-15 This book is written both for readers entering the field, and for practitioners with a background in AI and an interest in developing real-world applications. The book is a great resource for practitioners and researchers in both industry and academia, and the discussed case studies and associated material can serve as inspiration for a variety of projects and hands-on assignments in a classroom setting. I will certainly keep this book as a personal resource for the courses I teach, and strongly recommend it to my students. --Dr. Carlotta Domeniconi, Associate Professor, Computer Science Department, GMU This book offers a curriculum for introducing interpretability to machine learning at every stage. The authors provide compelling examples that a core teaching practice like leading interpretive discussions can be taught and learned by teachers and sustained effort. And what better way to strengthen the quality of AI and Machine learning outcomes. I hope that this book will become a primer for teachers, data Science educators, and ML developers, and together we practice the art of interpretive machine learning. --Anusha Dandapani, Chief Data and Analytics Officer, UNICC and Adjunct Faculty, NYU This is a wonderful book! I'm pleased that the next generation of scientists will finally be able to learn this important topic. This is the first book I've seen that has up-to-date and well-rounded coverage. Thank you to the authors! --Dr. Cynthia Rudin, Professor of Computer Science, Electrical and Computer Engineering, Statistical Science, and Biostatistics &

Bioinformatics Literature on Explainable AI has up until now been relatively scarce and featured mainly mainstream algorithms like SHAP and LIME. This book has closed this gap by providing an extremely broad review of various algorithms proposed in the scientific circles over the previous 5-10 years. This book is a great guide to anyone who is new to the field of XAI or is already familiar with the field and is willing to expand their knowledge. A comprehensive review of the state-of-the-art Explainable AI methods starting from visualization, interpretable methods, local and global explanations, time series methods, and finishing with deep learning provides an unparalleled source of information currently unavailable anywhere else. Additionally, notebooks with vivid examples are a great supplement that makes the book even more attractive for practitioners of any level. Overall, the authors provide readers with an enormous breadth of coverage without losing sight of practical aspects, which makes this book truly unique and a great addition to the library of any data scientist. Dr. Andrey Sharapov, Product Data Scientist, Explainable AI Expert and Speaker, Founder of Explainable AI-XAI Group

artificial intelligence textbooks: *Artificial Intelligence By Example - Second Edition* Denis Rothman, 2020-02-28

artificial intelligence textbooks: **Artificial Intelligence** Stuart Russell, Peter Norvig, 2019-07 Updated edition of popular textbook on Artificial Intelligence. This edition specific looks at ways of keeping artificial intelligence under control--

artificial intelligence textbooks: *Artificial Intelligence for Humans* Jeff Heaton, 2013 « Artificial Intelligence for Humans is a book series meant to teach AI to those readers who lack an extensive mathematical background. The reader only needs knowledge of basic college algebra and computer programming. Additional topics are thoroughly explained. Every chapter also includes a programming example. Examples are currently provided in Java, C#, and Python. Other languages are planned. »--

artificial intelligence textbooks: *A Human Algorithm* Flynn Coleman, 2020-10-20 A groundbreaking narrative on the urgency of ethically designed AI and a guidebook to reimagining life in the era of intelligent technology. The Age of Intelligent Machines is upon us, and we are at a reflection point. The proliferation of fast-moving technologies, including forms of artificial intelligence akin to a new species, will cause us to confront profound questions about ourselves. The era of human intellectual superiority is ending, and we need to plan for this monumental shift. *A Human Algorithm: How Artificial Intelligence Is Redefining Who We Are* examines the immense impact intelligent technology will have on humanity. These machines, while challenging our personal beliefs and our socioeconomic world order, also have the potential to transform our health and well-being, alleviate poverty and suffering, and reveal the mysteries of intelligence and consciousness. International human rights attorney Flynn Coleman deftly argues that it is critical that we instill values, ethics, and morals into our robots, algorithms, and other forms of AI. Equally important, we need to develop and implement laws, policies, and oversight mechanisms to protect us from tech's insidious threats. To realize AI's transcendent potential, Coleman advocates for inviting a diverse group of voices to participate in designing our intelligent machines and using our moral imagination to ensure that human rights, empathy, and equity are core principles of emerging technologies. Ultimately, *A Human Algorithm* is a clarion call for building a more humane future and moving conscientiously into a new frontier of our own design. "[Coleman] argues that the algorithms of machine learning--if they are instilled with human ethics and values--could bring about a new era of enlightenment." —San Francisco Chronicle

artificial intelligence textbooks: **Artificial Intelligence Basics** Tom Taulli, 2019-08-01 Artificial intelligence touches nearly every part of your day. While you may initially assume that technology such as smart speakers and digital assistants are the extent of it, AI has in fact rapidly become a general-purpose technology, reverberating across industries including transportation, healthcare, financial services, and many more. In our modern era, an understanding of AI and its possibilities for your organization is essential for growth and success. *Artificial Intelligence Basics* has arrived to equip you with a fundamental, timely grasp of AI and its impact. Author Tom Taulli

provides an engaging, non-technical introduction to important concepts such as machine learning, deep learning, natural language processing (NLP), robotics, and more. In addition to guiding you through real-world case studies and practical implementation steps, Taulli uses his expertise to expand on the bigger questions that surround AI. These include societal trends, ethics, and future impact AI will have on world governments, company structures, and daily life. Google, Amazon, Facebook, and similar tech giants are far from the only organizations on which artificial intelligence has had—and will continue to have—an incredibly significant result. AI is the present and the future of your business as well as your home life. Strengthening your prowess on the subject will prove invaluable to your preparation for the future of tech, and *Artificial Intelligence Basics* is the indispensable guide that you've been seeking. What You Will Learn Study the core principles for AI approaches such as machine learning, deep learning, and NLP (Natural Language Processing) Discover the best practices to successfully implement AI by examining case studies including Uber, Facebook, Waymo, UiPath, and Stitch Fix Understand how AI capabilities for robots can improve business Deploy chatbots and Robotic Processing Automation (RPA) to save costs and improve customer service Avoid costly gotchas Recognize ethical concerns and other risk factors of using artificial intelligence Examine the secular trends and how they may impact your business Who This Book Is For Readers without a technical background, such as managers, looking to understand AI to evaluate solutions.

artificial intelligence textbooks: *Artificial Intelligence: Theory and Applications* Endre Pap, 2021-07-15 This book is an up-to-date collection, in AI and environmental research, related to the project ATLAS. AI is used for gaining an understanding of complex research phenomena in the environmental sciences, encompassing heterogeneous, noisy, inaccurate, uncertain, diverse spatio-temporal data and processes. The first part of the book covers new mathematics in the field of AI: aggregation functions with special classes such as triangular norms and copulas, pseudo-analysis, and the introduction to fuzzy systems and decision making. Generalizations of the Choquet integral with applications in decision making as CPT are presented. The second part of the book is devoted to AI in the geo-referenced air pollutants and meteorological data, image processing, machine learning, neural networks, swarm intelligence, robotics, mental well-being and data entry errors. The book is intended for researchers in AI and experts in environmental sciences as well as for Ph.D. students.

artificial intelligence textbooks: *My Cell Phone Can Think* Michiro Negishi, 2018-10-10 From voice assistants to self-driving cars, Artificial Intelligence (AI) is showing up everywhere. As AI applications expand to more fields, it is becoming more and more important for children to know about AI. Parents may wonder how to prepare their children for a society in which AI is so prevalent. Fortunately, the basics of AI are easier to understand than the mathematical tricks children have to learn in school. *My Cell Phone Can Think: A Textbook on Artificial Intelligence* is a fun-to-read book on AI, but it is also designed for use as a textbook and includes technical information and Q&A.

artificial intelligence textbooks: *The Atlas of AI* Kate Crawford, 2021-04-06 The hidden costs of artificial intelligence, from natural resources and labor to privacy and freedom What happens when artificial intelligence saturates political life and depletes the planet? How is AI shaping our understanding of ourselves and our societies? In this book Kate Crawford reveals how this planetary network is fueling a shift toward undemocratic governance and increased inequality. Drawing on more than a decade of research, award-winning science, and technology, Crawford reveals how AI is a technology of extraction: from the energy and minerals needed to build and sustain its infrastructure, to the exploited workers behind automated services, to the data AI collects from us. Rather than taking a narrow focus on code and algorithms, Crawford offers us a political and a material perspective on what it takes to make artificial intelligence and where it goes wrong. While technical systems present a veneer of objectivity, they are always systems of power. This is an urgent account of what is at stake as technology companies use artificial intelligence to reshape the world.

artificial intelligence textbooks: *Artificial Intelligence: A Modern Approach, Global*

Edition Stuart Russell, Peter Norvig, 2021-04-15 The long-anticipated revision of Artificial Intelligence: A Modern Approach explores the full breadth and depth of the field of artificial intelligence (AI). The 4th Edition brings readers up to date on the latest technologies, presents concepts in a more unified manner, and offers new or expanded coverage of machine learning, deep learning, transfer learning, multi agent systems, robotics, natural language processing, causality, probabilistic programming, privacy, fairness, and safe AI.

artificial intelligence textbooks: Artificial Intelligence Charu C. Aggarwal, 2021-07-16 This textbook covers the broader field of artificial intelligence. The chapters for this textbook span within three categories: Deductive reasoning methods: These methods start with pre-defined hypotheses and reason with them in order to arrive at logically sound conclusions. The underlying methods include search and logic-based methods. These methods are discussed in Chapters 1 through 5. Inductive Learning Methods: These methods start with examples and use statistical methods in order to arrive at hypotheses. Examples include regression modeling, support vector machines, neural networks, reinforcement learning, unsupervised learning, and probabilistic graphical models. These methods are discussed in Chapters 6 through 11. Integrating Reasoning and Learning: Chapters 11 and 12 discuss techniques for integrating reasoning and learning. Examples include the use of knowledge graphs and neuro-symbolic artificial intelligence. The primary audience for this textbook are professors and advanced-level students in computer science. It is also possible to use this textbook for the mathematics requirements for an undergraduate data science course. Professionals working in this related field may also find this textbook useful as a reference.

artificial intelligence textbooks: The Fundamentals of Artificial Intelligence Nisha Talagala, 2023

Related to artificial intelligence textbooks

ARTIFICIAL Definition & Meaning - Merriam-Webster The meaning of ARTIFICIAL is made, produced, or done by humans especially to seem like something natural : man-made. How to use artificial in a sentence

ARTIFICIAL | English meaning - Cambridge Dictionary artificial adjective (NOT SINCERE) not sincere; not truly intended: an artificial smile

ARTIFICIAL Definition & Meaning | Artificial is used to describe things that are made or manufactured as opposed to occurring naturally. Artificial is often used as the opposite of natural. A close synonym of artificial is

ARTIFICIAL definition and meaning | Collins English Dictionary If you describe someone or their behaviour as artificial, you disapprove of them because they pretend to have attitudes and feelings which they do not really have

artificial adjective - Definition, pictures, pronunciation and usage Definition of artificial adjective from the Oxford Advanced Learner's Dictionary. made or produced to copy something natural; not real. All food served in the restaurant is completely free from

artificial - Wiktionary, the free dictionary Adjective [edit] artificial (comparative more artificial, superlative most artificial) Man-made; made by humans; of artifice. quotations The flowers were artificial, and he thought

Artificial - definition of artificial by The Free Dictionary Not arising from natural or necessary causes; contrived or arbitrary: "Hausa [in Niger] are separated from their brethren in Nigeria by a porous and artificial border that the colonial

artificial - definition of artificial - synonyms, pronunciation Meaning of artificial. artificial synonyms, pronunciation, spelling and more from Free Dictionary

artificial, adj. & n. meanings, etymology and more | Oxford English There are 23 meanings listed in OED's entry for the word artificial, five of which are labelled obsolete. See 'Meaning & use' for definitions, usage, and quotation evidence

What does artificial mean? - Artificial refers to something that is made or produced by human beings rather than occurring naturally or in the environment. It often implies an imitation of

something natural or a real

ARTIFICIAL Definition & Meaning - Merriam-Webster The meaning of ARTIFICIAL is made, produced, or done by humans especially to seem like something natural : man-made. How to use artificial in a sentence

ARTIFICIAL | English meaning - Cambridge Dictionary artificial adjective (NOT SINCERE) not sincere; not truly intended: an artificial smile

ARTIFICIAL Definition & Meaning | Artificial is used to describe things that are made or manufactured as opposed to occurring naturally. Artificial is often used as the opposite of natural. A close synonym of artificial is

ARTIFICIAL definition and meaning | Collins English Dictionary If you describe someone or their behaviour as artificial, you disapprove of them because they pretend to have attitudes and feelings which they do not really have

artificial adjective - Definition, pictures, pronunciation and usage Definition of artificial adjective from the Oxford Advanced Learner's Dictionary. made or produced to copy something natural; not real. All food served in the restaurant is completely free from

artificial - Wiktionary, the free dictionary Adjective [edit] artificial (comparative more artificial, superlative most artificial) Man-made; made by humans; of artifice. quotations The flowers were artificial, and he thought

Artificial - definition of artificial by The Free Dictionary Not arising from natural or necessary causes; contrived or arbitrary: "Hausa [in Niger] are separated from their brethren in Nigeria by a porous and artificial border that the colonial

artificial - definition of artificial - synonyms, pronunciation Meaning of artificial. artificial synonyms, pronunciation, spelling and more from Free Dictionary

artificial, adj. & n. meanings, etymology and more | Oxford English There are 23 meanings listed in OED's entry for the word artificial, five of which are labelled obsolete. See 'Meaning & use' for definitions, usage, and quotation evidence

What does artificial mean? - Artificial refers to something that is made or produced by human beings rather than occurring naturally or in the environment. It often implies an imitation of something natural or a real

Back to Home: <https://explore.gcts.edu>